



WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Water systems handle elevated disinfection byproducts

All disinfection byproducts (DBP) monitoring must be done during conditions typical for source and treatment operations. Disinfectant levels should not be adjusted up or down during monitoring periods, unless the adjustment accurately reflects typical conditions.

You are not expected to monitor under abnormal conditions such as a cross-connection event, source contamination event, or distribution line break. Monitoring while chlorine levels are elevated to protect public health from microbial contamination does not accurately reflect your DBP level, and could cost you time and money.

Consider the experience of the Penn Cove and Little Butte water systems.

Penn Cove Water and Sewer District

By Dean Thiem, Penn Cove Water and Sewer District

The Penn Cove Water and Sewer District is on Whidbey Island and serves 180 residential connections. We typically deliver about 30,000 gallons a day to our customers, and we normally flush our distribution system every two to three months.

In 1997, we completely replaced our water system – this included two 110,000-gallon reservoirs, ozone treatment to remove iron and manganese, softeners to decrease hardness, and chlorination.

Our philosophy from the start was to keep as much treated water above ground and in the reservoirs as possible. We normally had enough water in the reservoirs to supply our customers for six days without replenishment. We developed this practice as a way to buffer unforeseen events, like power outages and equipment failure.

One problem with this approach was that we had to put a lot of chlorine in the water going into the reservoirs to get a decent chlorine residual going into the distribution system. Another problem was that we wouldn't see changes in the quality of the water coming out of our treatment plant for up to six days.

When we took our annual DBP sample in August 2005, the result for TTHM was 0.084 mg/L, slightly over the MCL of 0.080 mg/L, and the result for HAA5



Penn Cove cut its chlorine bill in half and is delivering fresher water to its customers.



Volume 21, #2 - March 2006

Inside This Issue

Director's column.....	2
EPA contaminant tool.....	2
ODW offices moving.....	3
EPA finalizes rules	4
Grays Harbor system fined.....	5
<i>Especially for Small Systems</i>	
2006 final year for small system operator training.....	6
Distance education	7
Consumer Confidence Report	7
New arsenic standard	9
Training calendar	10-12
New & revised publications	12
Professional growth.....	13
Professional growth online	13
Drinking Water Seminars.....	13
Water use efficiency rule.....	13
Sustainable public health protection award.....	14
Water system funding	14
Drinking Water Week.....	16

(Continued on Page 8)

THE DIRECTOR'S COLUMN



BY DENISE ADDOTTA CLIFFORD

Making the tough call... no matter what

In November we issued a large fine against Grays Harbor Water District No. 1 in Grayland for taking required coliform samples at the source of supply and falsely labeling them as though they had

come from sites throughout the distribution system. (See related story, page 5.)

This went on for at least a decade. Luckily, it appears no one was harmed during that time.

Finally, the system's certified operator came forward and told us what was going on. For years, this operator had lived with a terrible dilemma: do what the boss says, and keep the job, or do what the law requires, protect public health, and possibly risk losing the job. That's a pretty tough position to be in.

Once we found out, it was tough for us at the Department of Health, too. On one hand, the operator did risk his neck to tell us what was going on. But, on the other hand, a water system's certified operator is ultimately responsible for making sure the system meets Safe Drinking Water Act requirements.

Even though the system had been submitting falsified records even before he was hired, many years' worth of falsified test results were submitted on this operator's watch. The people of Grayland had no way of knowing if their drinking water was safe or not.

We wrestled over the decision for quite awhile. After many discussions among ourselves and with our attorney, we finally decided to suspend the operator's certification for one year.

He certainly could have been in line to have his certification revoked completely. But we do appreciate him realizing how wrong this situation was, and making us aware of it. We will allow him to reduce the suspension to six months if he meets with me, gets additional training, and makes a presentation about this case at a conference this spring.

Certified operators, take heed: you are the front line professionals we all depend on to make sure our water is safe and reliable. We are serious about making sure you do your job right. We're here to help you get the training and support you need but, ultimately, it's your job to make the call... and insist upon doing what the law requires you to do to protect people's health, no matter what.

Check this out!

EPA's Water Contaminant Information Tool

In November, the U.S. Environmental Protection Agency launched the Water Contaminant Information Tool (WCIT). This secure online database provides current, reliable information on chemical, biological, and radiological contaminants of concern for water security.

Contaminants of concern for water security are those that may or may not be regulated, but could pose a significant threat to public health if accidentally or intentionally introduced into drinking water.

The WCIT database currently contains data for 48 contaminants and will be expanded in the future.

The WCIT database assists in planning for and responding to drinking water and wastewater contamination threats and incidents. It provides current, reliable contaminant data from peer-reviewed sources and research.

WCIT access is currently being granted to drinking water and wastewater utilities, state drinking water and wastewater programs, drinking water and wastewater associations, and federal officials (including government laboratory personnel). Given the sensitivity of the WCIT data, access to the tool will be tightly controlled with a password-protect feature.

To apply for WCIT access, visit <http://www.epa.gov/wcit>

Please e-mail questions to wcit@csc.com or call (703) 461-2100.



Olympia staff is moving to a new home

In May, the Office of Drinking Water (ODW) headquarters and Southwest Regional Office (SWRO) will join the rest of Department of Health in a cluster of new buildings in Tumwater. Our new building, Town Center 3 (TC3), is the third and final building in the Town Center East complex.

Another Department of Health (DOH) building, Point Plaza East, is nearby. Together the four buildings consolidate DOH offices from 27 locations throughout Thurston County.

Our new street address is 243 Israel Road. Town Center East is near the Olympia Regional Airport, at the intersection of Capitol Boulevard and Israel Road.

The headquarters office is expected to move in late May. Headquarters staff will be on the second floor of TC3 with other Environmental Health Division staff. This will be a short move from the current location on Tumwater Boulevard.

All headquarters' telephone numbers will remain the same, but there will be a new mailing address:

Washington State Department of Health
Office of Drinking Water
PO Box 47822
Olympia, Washington 98504-7822

The Southwest Regional Office move is planned for early June. Staff at the regional office will be leaving their Olympia home of 15 years on Pacific Avenue in the Fir Grove Office Park. They will occupy a portion of the first floor of TC3.

Their mailing address will not change, but they will get new telephone numbers. When the new numbers are available, they will be on the ODW Web site at <http://www.doh.wa.gov/ehp/dw> (Click on "Offices and Staff" in the left column.) If you dial the old number, a recording will provide the new one.

Please bear with us as we move. There will be a day or two in May when staff may be unavailable or difficult to reach as we get settled in. We have been working on this transition for over a year and we look forward to providing even better service at our new location.

Town Center East

Department of Health consolidates 27 Thurston County offices

Town Center 3 (far left in photo, under construction) ODW's new home. There will be other tenants in this five-story structure, but they are unknown at this time.

Point Plaza East (not shown) Health Systems Quality Assurance, local health trainings and other meetings

Town Center 1 (far right in photo) Administrative Offices, Vital Records, Epidemiology

Town Center 2 (center of photo) Community and Family Health, several Environmental Health Division offices, including our Assistant Secretary Janice Adair.

For a map, visit the Web site at <http://www.doh.wa.gov/DOHDirections/NewMarket.htm>



EPA finalizes rules

Surface water and disinfection byproducts

In January 2006, the U.S. Environmental Protection Agency (EPA) finalized the Long Term 2 Enhanced Surface Water Treatment Rule and the Stage 2 Disinfectants and Disinfection Byproducts Rule. Congress required these second-phase rules to strengthen protection against microbial contaminants, especially *Cryptosporidium*, and reduce potential health risks from disinfection byproducts (DBPs).

Long Term 2 Enhanced Surface Water Treatment Rule

The purpose of the LT2ESWTR is to reduce illness linked to *Cryptosporidium* and other pathogenic microorganisms in drinking water.

The Office of Drinking Water (ODW) will lead implementation of this rule, which supplements existing regulations by targeting additional *Cryptosporidium* treatment requirements to higher risk sources. All public water systems using surface water, including sources declared groundwater under the direct influence of surface water, will be required to comply with the rule. Compliance consists of two steps: Monitoring and additional treatment for *Cryptosporidium*, if required.

Monitoring

The LT2ESWTR will require systems to monitor their water sources to determine treatment requirements. For water systems serving 10,000 or more people, monitoring includes an initial two years of monthly sampling for *Cryptosporidium*, *E. coli* and turbidity. Unfiltered systems that meet the filtration avoidance criteria are required to monitor only for *Cryptosporidium*.

To reduce monitoring costs, filtered water systems serving fewer than 10,000 people will first monitor only for *E. coli*, which is less expensive to analyze than *Cryptosporidium*. They will monitor for *Cryptosporidium* only if their *E. coli* results exceed specified concentration levels.

Compliance deadlines

EPA staggered monitoring start dates by system size, with larger systems beginning first.

Population Served	LT2ESWTR MILESTONES		
	Submit source water sampling schedule	Begin source water sampling	Comply with <i>Cryptosporidium</i> treatment requirements*
≥100,000	July 1, 2006	October 1, 2006	April 1, 2012
50,000 - 99,999	January 1, 2007	April 1, 2007	October 1, 2012
10,000 - 49,999	January 1, 2008	April 1, 2008	October 1, 2013
<10,000	July 1, 2008	October 1, 2008	October 1, 2014
*States may allow water systems making capital improvements up to two years more to comply with a treatment requirement.			

Cryptosporidium treatment

The rule puts filtered water sources in one of four treatment categories (bins) based on their monitoring results. Systems in higher treatment bins are required to provide additional treatment for *Cryptosporidium*. The “microbial toolbox” offers these systems a wide range of treatment and management strategies to meet these requirements.

Based on an EPA analysis, most systems are expected to be in the lowest treatment bin, which carries *no* additional treatment requirements.

Sources that meet the filtration avoidance criteria will need to install treatment for *Cryptosporidium*. Treatment will need to provide at least 2-log (99%) or 3-log (99.9%) inactivation of *Cryptosporidium* oocysts depending upon the source water sampling results. Treatment options for unfiltered sources include installing chlorine dioxide, ozone, or ultraviolet light to meet the *Cryptosporidium* inactivation requirements.

(Continued on Page 15)

Grays Harbor water system fined, operator suspended for falsifying reports

In November, the Office of Drinking Water (ODW) issued a \$31,680 fine against Grays Harbor County Water District No. 1 and suspended the system's certified water works operator for up to one year. The water district, which is located in Grayland, submitted false coliform test reports, potentially risking the health of people who drank the water.

For years, under orders from a water district commissioner, the operator had taken monthly bacteria samples at the wellhead. Administrative staff falsely labeled the samples with addresses from the distribution system before they were submitted to ODW. The samples appeared valid to the laboratory and to reviewers at ODW.

Coliform samples indicate the quality of the water being delivered to customers. Dangerous bacteria can get into distribution pipes and plumbing through cracks, new construction and other system breaches. If the problems are not found and fixed, these bacteria can make people sick. Therefore, drinking water regulations require monthly coliform samples be collected from the ends of the distribution system, rather than the well.

A report to ODW

The operator challenged the commissioners to change the practice. He said the interest of a developer wanting to expand the system would probably reveal the deception. Also, the developer might be able to help the district pay for needed improvements if the water tests failed.

The commissioners disagreed, so the operator reported the situation to ODW in July.

ODW follow up

ODW began working with the water district to investigate the extent of the

problem, examine the district's water operation, and correct the sampling problem.

ODW immediately directed the water system to collect five coliform samples from the water system. In a follow-up sanitary survey a week later, ODW staff collected another five samples themselves. All 10 samples were clear of bacteria, and no evidence of a waterborne disease outbreak could be documented in Grayland in the last decade.

The investigation showed the water district had been sampling from the well and falsifying records for eight years or more. The commissioner, a former certified operator for the district, said he began sampling there to avoid the cost of repeat samples when a positive coliform result occurred. District employees allege that he continued requiring them to work that way, even after the operator pointed out it was wrong.

The district's past coliform samples were invalidated in the state's records. Since that put the district in significant non-complier status, ODW placed it under a red operating permit and added a number of requirements to its operations.

The district:

- Must collect five coliform samples per month for 12 months, instead of two.
- May not expand until improvements are made. These include correcting deficiencies in the coliform monitoring program, and repairing leaks and low pressure problems.
- Had to submit an overdue Water System Plan (WSP), which is now under ODW review.
- Had to institute a cross-connection

control program as part of the WSP.

Staff from ODW's Southwest office have been attending commission meetings and offering technical assistance to the elected officials and the operator. They have also worked with the consultant preparing the WSP, to ensure all bases are covered.

A fine and a suspension

The district was fined for being out of compliance with its water quality monitoring plan by directing falsification of water quality reports. The penalty amount is based on a standard formula and reflects violations over a 12-month period. The water district has appealed the fine.

The operator's certification was suspended for 12 months. His suspension will be reduced to six months if he gets additional training and makes a presentation on drinking water safety. He continues to work for the district under the supervision of another certified operator, and is willing to fulfill the requirements to regain his certification quickly.

Because ODW can only take action against the water system or its operator, state officials asked the Grays Harbor County Prosecuting Attorney's Office to pursue criminal charges against the water district. If warranted, individuals involved in the fraudulent activities may be prosecuted.

A new commission

The water district now has two new commissioners.

One long-term commissioner failed to win his re-election bid last fall. And the commissioner who admitted directing staff to take improper samples resigned in December.

The new commission is eager to learn the right way to conduct its business.



Especially for Small Systems

2006 is the final year for the Small Water System Operator Training Program

Since July 2002, the Office of Drinking Water (ODW) has supplied training to operators of small water systems. Our four-year training program was designed to help water system operators who serve no more than 3,300 people achieve their professional growth requirement during two reporting periods. The U.S. Environmental Protection Agency (EPA) provided a grant for the program.

EPA considers Washington a success story in administering this program. By the end of last year, 9,727 participants had attended 116 courses at 625 locations statewide. That equates to 99,100 classroom hours.

We are excited so many of you have taken advantage of this federally funded program. Our achievements are largely due to a very successful partnership between ODW and our three contracted trainers: Rural Community Assistance Corporation, Evergreen Rural Water of Washington, and the Washington Environmental Training Center.

Our 2006 training lineup

Qualifying course participants will receive flyers advertising each course. You will also find course in-



formation in Water Tap. A complete training schedule with dates and locations is updated periodically on our Web site at http://www.doh.wa.gov/ehp/dw/our_main_pages/training.htm

New courses

With the help of our trainers, ODW staff, and input from class participants, we identified new courses to be offered in 2006. They include:

- Advanced Wellhead and Aquifer Protection
- Emergency Repairs
- Assuring Reliable, Efficient Water Supply
- Metering: Source and Residential
- Managing a Public Water Supply System

Repeat courses

In addition to new courses, ODW is offering a number of repeat sessions from last year. These include:

- Rate Setting
- Chlorination Basics

- Advanced Operations and Maintenance
- Water Sampling Basics
- Water Distribution Specialist/Manager Exam Review (3-day course and 1-day course)
- Cross-Connection Control and Backflow Basics (one-day course)
- Advanced Cross-Connection Control (two-day course)
- Basic Pump Operations and Maintenance
- How to Develop a Small Water System Management Program
- Basic Treatment Operator (BTO) Exam Review
- Water Treatment Plant Operator (WTPO) Exam Review
- Basic Field Operations
- Water System Controls, Monitoring and Alarm Basics
- Storage Tank Disinfection
- Chlorination Basics
- Cross-Connection Control Specialist Exam Review

Please note: Certified water works operators who repeat the same course in a different professional growth reporting period can apply one-half of the CEU earned toward the professional growth requirement. No CEU will be allowed for courses repeated during the same reporting period.

You may now get online information about the status of your professional growth requirement.

New course fee

Effective January 1, 2006, the fee for each class increased from \$25 to \$50, with the exception of conferences.

Your suggestions are welcome

ODW welcomes your suggestions for new courses and comments on courses you've already taken. To share your training ideas, call Ronni Woolrich at (360) 236-3092 or e-mail ronni.woolrich@doh.wa.gov

Distance Education Reimbursement Program extended to end of 2006

In January 2005, the Office of Drinking Water began a one-year pilot program to reimburse small water system operators in Washington for successfully completing approved training via distance education. ODW has now extended the deadline for completing distance education and submitting reimbursement requests until December 31, 2006. This coincides with the end of the next professional growth reporting period.

Who is eligible to participate in the program?

The reimbursement program is designed to help operators of small water systems meet their professional growth renewal requirement. Distance education is an alternative for operators who have difficulty getting to classroom training, or who want to try a new training format. It includes online training, CD-ROM, videotape and correspondence courses.

You may qualify for reimbursement of certain distance education enrollment fees and materials if you meet the following criteria:

- You are a certified water works operator in Washington.
- You work for a water system serving fewer than 3,300 people.
- You successfully complete an approved distance education course following ODW procedures.
- You have not yet met your professional growth requirement.
- You have not yet exhausted your \$200 maximum reimbursement amount.

Prior to enrollment, call the Certification Services Division of the Washington Environmental Training Center (WETRC) for a current list of approved distance education courses, instructions and forms. Located at Green River Community College, WETRC's phone number is (800) 562-0858 or (253) 288-3369.

Reminder Your Consumer Confidence Report is due July 1

It's time to prepare your next Consumer Confidence Report (CCR). Group A community water systems must provide a CCR to their customers and the Office of Drinking Water (ODW) by July 1, 2006. You must also send a certification form, stating your CCR was sent to customers and that it was correct, to ODW by the same date.

If you sell water to another community system, you must give that system the source information it needs to include in its report. The due date for water sellers to supply this information is April 1 unless a different date is agreed to in writing.

If you purchase water from another community system, contact the other system to get the information about the source water you need to complete your CCR. Be sure to get the information in time to meet the July 1 deadline.

For more information

If you have questions or need help preparing your CCR, visit the ODW Web site at http://www.doh.wa.gov/ehp/dw/our_main_pages/consumer.htm or call the nearest ODW regional office:

Eastern Region – (509) 456-3115
Northwest Region – (253) 395-6750
Southwest Region – (360) 664-0768

Call the U.S. Environmental Protection Agency at (800) 426-4791 or visit the Web site at <http://www.epa.gov/safewater/ccr1.html>. This Web page includes a link to CCRiWriter, a software application to help water suppliers quickly create their consumer confidence reports.

Evergreen Rural Water of Washington has a free online computer template to guide you through the report at <http://www.erwow.org/consumerconfidence.htm>. You can also order a CD-ROM (\$20 for members and \$30 for nonmembers) by calling (800) 272-5981 or writing to PO Box 2300, Shelton, WA 98584.

Call the American Water Works Association at (800) 366-0107, write to 6666 W. Quincy Ave., Denver, CO 80235, or visit the Web site at <http://www.awwa.org/Advocacy/learn/info/6FAQccr.cfm>

Water Systems... (Continued from Page 1)

was 0.018 mg/L, well under the MCL of 0.060 mg/L.

We knew keeping that much treated water in our reservoirs posed a potential for elevated DBPs, but we didn't expect this result. We also take monthly bromate samples and every one has come back non-detectable.

We notified our regional engineer of the problem and asked for advice on the appropriate way to address the problem. We put a plan together that included taking one reservoir out of service and flushing the distribution system.

After draining one reservoir and doing a complete distribution system flush, the system was allowed to run for two weeks before we took another TTHM sample. During that time, our chlorine usage dropped by 50 percent.

In September we took a second TTHM sample. The results of the second test were 0.030 mg/L for TTHM and 0.008 mg/L for HAA5. Since both samples were taken in the same quarter, we were able to average the two results to remain under the MCL, and we didn't have to go to quarterly DBP monitoring.

We now use only one reservoir at a time, and will continue to do so until we need additional storage capacity. We have cut our chlorine bill in half, avoided having to increase costly DBP monitoring from annually to quarterly, and are delivering fresher, lower DBP water to our customers.

We can also see changes in the quality of water we produce in two to three days and can react sooner. The down side is, if we have an unforeseen event, we do not have the additional water readily available for our customers.

Little Butte Water System

Little Butte Water System is a small surface water system serving 30 connections. The system gets its water from Lake Chelan and uses sodium hypochlorite solution for disinfection. When the system did initial DBP monitoring in August 2004, the results were 0.088 mg/L for TTHM and 0.022 mg/L for HAA5.

ODW directed the system to begin quarterly DBP monitoring because the TTHM level exceeded the MCL of 0.080 mg/L. Quarterly DBP monitoring is a monetary hardship on such a small system, so Little Butte began investigating the reason for the elevated TTHM level.

The water treatment plant operator observed that the monitoring was not done during normal operating conditions. When the DBP sample was taken, the system had been experiencing problems with its source pump, which caused the reservoir to run dry. As a precaution, the system had increased the chlorine residual level in the distribution system.

The day the DBP sample was taken, the chlorine residual level at the outlet of the chlorine contact pipe was 0.9 mg/L. Normal chlorine residual levels vary between 0.4 and 0.6 mg/L.

The system re-sampled after the chlorine residual returned to normal operating levels and the result for TTHM was 0.020 mg/L and HAA5 was 0.012 mg/L. ODW invalidated the initial DBP results because the monitoring was done when the water system had elevated chlorine levels. This enabled the system to remain on annual DBP monitoring.

Why monitor for disinfection byproducts?

Many water systems add disinfectants to destroy or inactivate microbial organisms. However, these disinfectants form disinfection byproducts (DBPs) when they react with naturally occurring organic substances in the water. Research indicates exposure to some disinfectants and DBPs can cause negative health effects in laboratory animals and humans.

Evidence that regulated DBPs cause negative health effects at low concentrations is inconclusive. There is a public health concern given the research and the many people who drink chlorinated water.

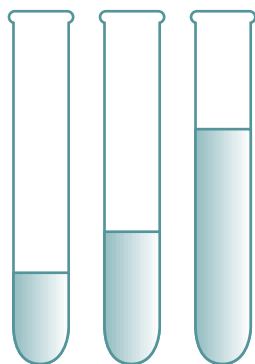
Office of Drinking Water (ODW) has incorporated federal DBP monitoring requirements into state drinking water regulations. All community and non-transient non-community systems using disinfectants must monitor for total trihalomethanes (TTHM) and five haloacetic acids (HAA5).

Maximum
contaminant levels
(MCL) and sampling
requirements for DBPs

Contaminant	MCL (mg/L)	Compliance
Total Trihalomethanes (TTHM)	0.080	RAA of Quarterly Averages*
Five Haloacetic Acids (HAA5)	0.060	RAA of Quarterly Averages*
Bromate	0.010	RAA of Monthly Averages*
Chlorite	1.0	Daily

*RAA = Running annual average

The New Arsenic Standard Is Now In Effect



The new Maximum Contaminant Level (MCL) of 10 parts per billion (ppb) for arsenic in drinking water became enforceable by the Department

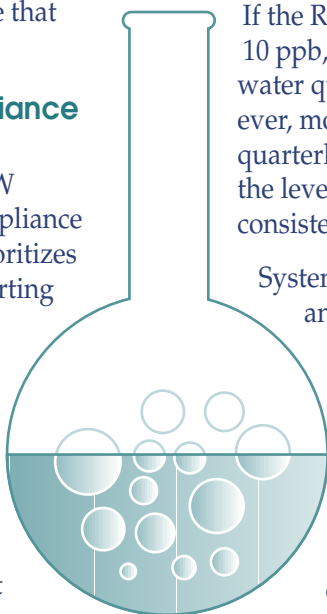
of Health Office of Drinking Water (ODW) on January 23, 2006. This new water quality standard applies to community and non-transient non-community (NTNC) water systems that have at least one non-purchased source.

Surface water sources must collect a sample for arsenic by December 31, 2006, and groundwater sources must collect a sample for arsenic by December 31, 2007, unless the source has a valid waiver from the arsenic monitoring requirement. Samples are to be collected after treatment, but prior to entry into the distribution system. To date, fewer than 50 systems statewide have a recent sample that exceeds the 10 ppb MCL.

ODW's arsenic compliance strategy

During the past year, ODW developed an arsenic compliance strategy. This strategy prioritizes enforcement activities, starting with water systems that have the highest arsenic levels, and emphasizes two major components:

1. **Monitoring**
Ensuring all community and NTNC systems collect the required arsenic samples.



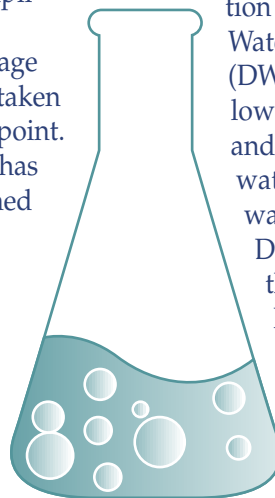
2. **Water quality** – Helping water systems comply with the new 10 ppb arsenic standard.

When an initial sample result for arsenic exceeds the 10 ppb value, ODW will notify the water system to begin quarterly monitoring. Compliance with the MCL is based on the running annual average (RAA) of the arsenic levels taken quarterly at each sampling point. Once quarterly monitoring has begun, the RAA is determined each quarter.

A source is out of compliance at any time during the monitoring process when it is clear that the RAA exceeds, or will exceed, the 10 ppb standard. A single sample result could cause the RAA to exceed the MCL. For example, if two quarterly sample results are each greater than 20 ppb, or one quarterly sample result is greater than 40 ppb, the average of the quarters would exceed the standard.

If the RAA is less than or equal to 10 ppb, there is no violation of the water quality standard. However, monitoring must continue quarterly until it is shown that the level of arsenic is reliably and consistently below the MCL value.

Systems that exceed the running annual average MCL will be required to achieve compliance by installing an approved treatment method or by implementing an approved non-treatment method (such as blending, developing a new source, or creating an intertie with a neighboring system).



For more information about the arsenic compliance strategy, please call ODW at (360) 236-3100.

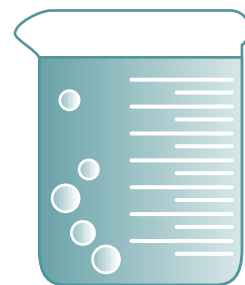
Resources

Your system may be able to get financial support for arsenic mitigation from the federal Drinking Water State Revolving Fund (DWSRF). This program provides low interest loans to community and nonprofit non-community water systems. To date, nine water systems have received DWSRF loans to help defray the costs of arsenic mitigation. For more information about the DWSRF Program, please visit ODW's Web site at [http://www.doh.wa.gov/ehp/dw/our main pages/dwsrf.htm](http://www.doh.wa.gov/ehp/dw/our%20main%20pages/dwsrf.htm)

The following publications are on the ODW Web site at <http://www4.doh.wa.gov/dw/publications/publications.cfm>

Arsenic treatment technology: Evaluation Handbook for Small Systems (EPA Pub. 816-R-03-014)

Arsenic Treatment for Small Water Systems (ODW Pub. 331-210)



Training and Education Calendar: March - June 2006

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cost/CEU</u>
March 13-16	BAT Certification Class	Auburn	WETRC	1-800-562-0858	\$525/3.0
March 14	Seasonal Water Systems	Colville	ERWOW	1-800-272-5981	Free/0.5
March 14	Trenching/Shoring/Competent Person	Wenatchee	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
March 14	Using GIS Technology	Liberty Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
March 15	Managing a Public Water System	Mt. Vernon	ERWOW	1-800-272-5981	\$50/0.7*
March 15	Seasonal Water Systems	Chelan	ERWOW	1-800-272-5981	Free/0.5
March 15	Using GIS Technology	Moses Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
March 16	Managing a Public Water System	Bremerton	ERWOW	1-800-272-5981	\$50/0.7*
March 16	Using GIS Technology	Richland	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
March 17	Basic Electrical	Kelso	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.8*
March 17	BAT Certification Exam	Auburn	WETRC	1-800-562-0858	\$180/NA
March 18	BAT Professional Growth Exam	Vancouver	WETRC	1-800-562-0858	\$105/NA
March 20	Weapons of Mass Destruction Awareness	Vancouver	WETRC	1-800-562-0858	\$50/0.5*
March 20-23	Annual Water/Wastewater Operations Wkshop	Vancouver	WETRC	1-800-562-0858	Call/TBA†
March 21	Confined Space Entry	Marysville	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
March 21	Pumps & Their Operations	Mt. Vernon	ERWOW	1-800-272-5981	\$50/\$70/\$85/TBA*
March 21-30	BAT Refresher Course	Vancouver	WETRC	1-800-562-0858	\$205/1.5
March 22	Pumps & Their Operations	Yelm	ERWOW	1-800-272-5981	\$50/\$70/\$85/TBA*
March 22-23	BAT Refresher Course	Spokane	WETRC	1-800-562-0858	\$205/1.5
March 23	Pumps & Their Operations	Yakima	ERWOW	1-800-272-5981	\$50/\$70/\$85/TBA*
March 24	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$105/NA
March 27-28	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	\$205/1.5
March 29	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$105/NA
April 1	BAT Professional Growth Exam	Vancouver	WETRC	1-800-562-0858	\$105/NA
April 3-6	BAT Certification class	Spokane	WETRC	1-800-562-0858	\$525/3.0
April 4	Pumps & Their Operations	Liberty Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/TBA*
April 4	Stage #1 Disinfection Byproduct Rule Training	Yelm	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 4	Small Water System Management Program	Oak Harbor	ERWOW	1-800-272-5981	Free/0.5
April 4-6	Pump Operation & Maintenance	Mt. Vernon	WETRC	1-800-562-0858	\$275/2.1
April 5	Pumps & Their Operations	Moses Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/NA*
April 5	Stage #1 Disinfection Byproduct Rule Training	Tacoma	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 5-6	Advanced Backflow & Cross Connection Control	Bellingham	ERWOW	1-800-272-5981	\$50/1.4*
April 6	Small Water System Management Program	Battle Ground	ERWOW	1-800-272-5981	Free/0.5
April 6	Stage #1 Disinfection Byproduct Rule Training	Chehalis	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 7	Basic Electrical	Shelton	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.8*
April 7	BAT Certification Exam	Spokane	WETRC	1-800-562-0858	\$180/NA
April 7	Confined Space Entry	Auburn	WETRC	1-800-562-0858	\$140/0.7
April 11	Managing a Public Water System	Port Angeles	ERWOW	1-800-272-5981	\$50/0.7*
April 12	Managing a Public Water System	Olympia	ERWOW	1-800-272-5981	\$50/0.7*
April 12	Managing Your Systems Liabilities	Mt. Vernon	ERWOW	1-800-272-5981	\$25/0.3
April 12-13	Fire Hydrants: Installation, Testing, Op & Repair	Everett	WETRC	1-800-562-0858	\$245/1.4
April 13	Managing a Public Water System	Kelso	ERWOW	1-800-272-5981	\$50/0.7*

*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

Training and Education Calendar: March - June 2006

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cost/CEU</u>
April 13	Managing Your Systems Liabilities	Shelton	ERWOW	1-800-272-5981	\$25/0.3
April 17	Microscope Maintenance	Snoqualmie	ERWOW	1-800-272-5981	Call/TBA
April 18	Managing a Public Water System	Chelan	ERWOW	1-800-272-5981	\$50/0.7*
April 18	Small Water System Management Program	Stevenson	ERWOW	1-800-272-5981	Free/0.5
April 19	Small Water System Management Program	Pullman	ERWOW	1-800-272-5981	Free/0.5
April 19	Microscope Maintenance	Spokane	ERWOW	1-800-272-5981	Call/TBA
April 19	Managing a Public Water System	Yakima	ERWOW	1-800-272-5981	\$50/0.7*
April 20	Microscope Maintenance	Moses Lake	ERWOW	1-800-272-5981	Call/TBA
April 20	Small Water System Management Program	Omak	ERWOW	1-800-272-5981	Free/0.5
April 20	Stage #1 Disinfection Byproduct Rule Training	Liberty Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 21	Microscope Maintenance	Centralia	ERWOW	1-800-272-5981	Call/TBA
April 24	Trenching/Shoring/Competent Person	Richland	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
April 25	Stage #1 Disinfection Byproduct Rule Training	Richland	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 26	Stage #1 Disinfection Byproduct Rule Training	Ellensburg	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
April 27	Stage #1 Disinfection Byproduct Rule Training	Wenatchee	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
May 1	Water Distribution Specialist Cert Exam Review	Mt. Vernon	WETRC	1-800-562-0858	\$50/0.7*
May 2	BTO/WTPO OIT and Level 1 Cert Exam Review	Mt. Vernon	WETRC	1-800-562-0858	\$50/0.7*
May 2	Managing a Public Water System	Bellingham	ERWOW	1-800-272-5981	\$50/0.7*
May 3	Managing a Public Water System	Tacoma	ERWOW	1-800-272-5981	\$50/0.7*
May 4	Managing a Public Water System	Chehalis	ERWOW	1-800-272-5981	\$50/0.7*
May 4-5	Competent Person Cave-in Protection	Spokane	WETRC	1-800-562-0858	\$210/1.4
May 5	Basic Electrical	Liberty Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.8*
May 8	Water Distribution Specialist Cert Exam Review	Spokane	WETRC	1-800-562-0858	\$50/0.7*
May 8-10	Basic Electrical	Spokane	WETRC	1-800-562-0858	\$275/2.1
May 9	Pumps & Their Operations	Richland	ERWOW	1-800-272-5981	\$50/\$70/\$85/TBA*
May 9	Water Works Math	Spokane	ERWOW	1-800-272-5981	Free/0.5
May 9-11	WTPO Exam Review	Olympia	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.1*
May 10	BTO/WTPO OIT and Level 1 Cert Exam Review	Moses Lake	WETRC	1-800-562-0858	\$50/0.7*
May 15	Analytical Meters Maintenance & Use	Bellingham	ERWOW	1-800-272-5981	Call/TBA
May 15-16	Fire Hydrant Installation, Testing, Op & Repair	Spokane	WETRC	1-800-562-0858	\$245/1.4
May 15-17	Water & Wastewater Disinfection	Auburn	WETRC	1-800-562-0858	\$275/1.4
May 16-18	Cross Connection Control Exam Review	Moses Lake	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.1*
May 16-18	Water Distribution Manager Exam Review	Mt. Vernon	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.2*
May 17	Analytical Meters Maintenance & Use	Airway Heights	ERWOW	1-800-272-5981	Call/TBA
May 18	Analytical Meters Maintenance & Use	Yakima	ERWOW	1-800-272-5981	Call/TBA
May 19	Analytical Meters Maintenance & Use	Shelton	ERWOW	1-800-272-5981	Call/TBA
May 19	Stage #1 Disinfection Byproduct Rule Training	Bellingham	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
May 23	Water Works Math	Shelton	ERWOW	1-800-272-5981	Call/TBA
May 23-25	Cross Connection Control Exam Review	Olympia	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.1*
May 23-23	Water Distribution Manager Exam Review	Moses Lake	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.2*
May 26	Stage #1 Disinfection Byproduct Rule Training	Moses Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*

*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

Training and Education Calendar: March - June 2006

Date	Topics	Location	Contact	Phone #	Cost/CEU
May 29-30	Advanced BAT Troubleshooting & Repair	Auburn	WETRC	1-800-562-0858	\$275/1.4
May 30	Stage #1 Disinfection Byproduct Rule Training	Olympia	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
May 31-June 2	Cross Connection Control Exam Review	Mt. Vernon	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.1*
May 31-June 2	Water Distribution Manager Exam Review	Olympia	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.2*
May 31-June 2	Water Distribution Manager Exam Review	Spokane	ERWOW	1-800-272-5981	\$50/\$180/\$230/2.2*
June 6-7	Emergency Response Planning 2006	Moses Lake	WETRC	1-800-562-0858	\$155/2.1
June 20-22	7th Annual Western Washington Regional Short School & Trade Show	Edmonds	PNCWA-AWWA	Ed Griffenberg 425-257-8225	\$75/\$150/TBA*†

*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

^ Some scholarships will be available. For information, visit the Web site at <http://www.myawwa.com>

For information about distance learning activities call WETRC at (800) 562-0858

Additional Training Links:

AWWA King County Subsection Web site—<http://www.kcawwa.org/>

ERWOW Web site—<http://www.erwow.org/>

WETRC Web site—<http://www.wetrc.org/>

AWWA Pacific Northwest Section Web site—<http://www.pnws-awwa.org/>

EPA electronic workshops Web site—<http://www.epa.gov/safewater/dwa/electronic.html>

For the complete Training Calendar visit the Drinking Water Homepage and click on Training - <http://www.doh.wa.gov/ehp/dw>

NOTE: Links to external resources are provided as a public service, and do not imply endorsement by the Washington State Department of Health.

- New & Revised Publications -

School Lead Testing Results from 2005 Grant Program (331-326). New! 2-page fact sheet graphs the results of initial testing for lead in drinking water at Washington public elementary schools.

On the Trail of the Elusive Water Leak (331-331-335). New! 4-pages covering ways to find a water leak.

Water Works Operator Certification: WAC 246-292 (331-108). Revised. 21-page guidance document on state regulations for water works operator certification

Getting Drinking Water Information (331-185). Revised. 2-page fact sheet listing Office of Drinking Water contacts for information: Website, publications, newsletter, technical assistance.

Office of Drinking Water Fee Schedule (331-228). Revised. 13-page guidance document on state regulations that establish Water System Evaluation and Project Review and

Approval Fees, Water Works Certification Fees, and Drinking Water Operating Permit Fees.

Drinking Water State Revolving Fund (331-233). Revised. 2-page fact sheet with general information about the Drinking Water State Revolving Fund program, loan requirements and systems that have received loans.

Drinking Water State Revolving Fund 2006 Funding Cycle Application Guidelines (331-196). Revised. 49-page packet of guidelines for water systems that want to apply for low-interest loans to improve their facilities.

Distance Education Reimbursement (331-281).

Revised. 2-page fact sheet on a program to reimburse 100 certified operators of small water systems in Washington for successful completion of approved distance education.

Office of Drinking Water publications are available by phone at (800) 521-0323 or online at <http://www4.doh.wa.gov/dw/publications/publications.cfm>



Professional growth requirement deadlines

All water works operators and backflow assembly testers (BATs) certified prior to January 1, 2004, including all operators grandparented into the certification program, must meet the professional growth requirement by December 31, 2006 to be eligible for 2007 certification renewal. Operators and BATs certified between January 1, 2004 and December 31, 2006 have until December 31, 2009 to meet the professional growth requirement the first time.

Access Your Professional Growth Report Online

Water works operators may now view their professional growth transcripts and status online at <http://www.wetrc.org/>. Just click on "Water Works Operators" and "View Professional Growth Report," and then follow the instructions to create your own personal username and password.

Note: When you create your password, do not add any zeros to the front of your certification number. If you do, the system will not be able to identify you.

If you have questions about your professional growth requirement, contact Certification Services staff at Green River Community College.

Water Works Operators – please call Peggy Barton, associate director, Certification Services, at (800) 562-0858 or (253) 288-3369, ext. 2.

Backflow Assembly Testers – please call David Kingsley, Backflow Assembly Tester Certification Program manager, at (800) 562-0858 or (253) 288-3369, ext. 3.



Sizzling Seminars

Drinking Water Seminars will be in July this year. Office of Drinking Water staff is planning to hold these one-day training events in Spokane, Wenatchee, Mt. Vernon, Tacoma and Vancouver.

The registration fee for this training is \$30. CEU will be available.

We will mail more information in May, and post it to the Web site at <http://www.doh.wa.gov/ehp/dw/default.htm>

Stay Tuned

The Office of Drinking Water is nearing completion of the final draft proposed Water Use Efficiency Rule. When internal review is complete, we will send the draft to members of the regulated community and stakeholders, and announce a hearing schedule.

Stay tuned.... When available, this information will be posted to our Web site at http://www.doh.wa.gov/ehp/dw/municipal_water/water_use_efficiency_rule.htm





Award for Sustainable Public Health Protection

The U.S. Environmental Protection Agency presented a Sustainable Public Health Protection Award to Washington's Drinking Water State Revolving Fund Program (DWSRF). As one of 10 winners nationwide, the program is "an example of innovative and effective use of DWSRF financing and program mechanisms."

Washington has an extremely effective partnership. The DWSRF and the Water System Acquisition and Rehabilitation Program are administered by Department of Health, Department of Community, Trade and Economic Development, and the Public Works Board. The Public Works Board also manages the Public Works Trust Fund. The trust fund loan cycle coincides with the DWSRF cycle so funding can be coordinated for various project types and recipient sizes.

Drinking Water State Revolving Fund

Applications due May 8

The Drinking Water State Revolving Fund is a low-interest loan program for reimbursement of capital construction projects intended to improve drinking water systems and protect public health.

Municipal and privately owned Group A water systems may be eligible for loans. The basic interest rate is 1.5 percent. Applicants with water systems in economically distressed counties and disadvantaged communities may receive even lower interest rates. Funding will be available in spring 2007 for projects that make the final funding list.

2006 program guidelines and application are online at http://www.doh.wa.gov/ehp/dw/our_main_pages/dwsrf.htm

Water System Acquisition and Rehabilitation Program

Five jurisdictions selected for 2005 WSARP grant

The Public Works Board approved the top scoring WSARP projects at their December meeting. Five jurisdictions were selected to receive a total of \$2 million in legislative grant funds. They will help cover the cost of five projects that will acquire and rehabilitate eight small, failing public water systems. More than 2,200 people will benefit.

The Legislature established WSARP in 2003 to help municipal water systems acquire and rehabilitate public water systems with water quality problems, or that have been allowed to deteriorate to a point where public health is an issue. 2003 grant funds, totaling \$4 million, funded 14 projects.

Infrastructure Assistance Coordinating Council

The Infrastructure Assistance Coordinating Council helps Washington communities identify and obtain the resources they need to develop, improve and maintain public works programs. For help locating infrastructure funding and technical assistance visit the Web site at <http://www.infracfunding.wa.gov/>

For more information

A summary of funding for drinking water infrastructure projects is in the February 2006 Water Tap at http://www.doh.wa.gov/ehp/dw/our_main_pages/watertap.htm

Please call Chris Gagnon at (360) 236-3095 or e-mail chris.gagnon@doh.wa.gov

Stage 2 Disinfectants and Disinfection Byproducts Rule

The Stage 2 D/DBPR was developed to reduce potential cancer, reproductive and developmental health risks from disinfection byproducts (DBPs) in drinking water. DBPs form when chemical disinfectants react with naturally occurring substances in the water. The rule applies to community and non-transient non-community water systems that distribute chemically disinfected water.

In Washington state, EPA will lead Stage 2 D/DBP Rule implementation until ODW obtains primacy. The rule targets water systems with the greatest DBP risk by requiring all distribution system sampling locations to comply with the maximum contaminant levels (MCL) of 80 parts per billion (ppb) for total trihalomethanes (TTHMs) and 60 ppb for regulated haloacetic acids (HAAs).

This approach differs from current requirements, which base compliance on average DBP concentrations across the distribution system. It also provides more equitable public health protection for systems that collect multiple samples when monitoring for DBPs.

This rule will require water systems to conduct an initial distribution system evaluation (IDSE) to identify the locations with high DBP concentrations. Systems will then use those locations as sampling sites for Stage 2 D/DBPR compliance monitoring. There are IDSE waivers for very small water systems and those with consistently low DBP concentrations throughout their distribution systems.

The Stage 2 D/DBPR also requires each system to determine if it has exceeded an operational evaluation level, which is identified using its compliance monitoring results.

The operational evaluation level provides early warning of possible future MCL violations. A system that exceeds the level must review operational practices and submit a report to ODW identifying actions to mitigate future high DBP levels, particularly those that may jeopardize the system's compliance with the DBP MCLs.

Compliance deadlines

EPA based Stage 2 D/DBPR compliance deadlines on water system size, with the largest systems required to act first. Wholesale and consecutive systems of any size must comply with the requirements at the same time as the largest system in the combined distribution system.

Consecutive water systems purchase water from another system.

A combined distribution water system is the interconnected system of wholesale and consecutive systems that receive treated water.

Population Served	STAGE 2 D/DBPR MILESTONES			
	Submit IDSE monitoring plan or IDSE alternative	Complete IDSE	Submit IDSE Report	Begin Stage 2 compliance monitoring
≥100,000	October 1, 2006	September 30, 2008	January 1, 2009	April 1, 2012
50,000 - 99,999	April 1, 2007	March 31, 2009	July 1, 2009	October 1, 2012
10,000 - 49,999	October 1, 2007	September 30, 2009	January 1, 2010	October 1, 2013
<10,000	April 1, 2008	March 31, 2010	July 1, 2010	October 1, 2013*
*Small water systems with filtered surface water sources that exceed the E. Coli triggers in the LT2ESWTR will have until 10/1/2014 to begin Stage 2 compliance monitoring.				

Resources:

E-mail questions on either rule to EPA at stage2mdbp@epa.gov

Visit these EPA Web sites:

EPA Headquarters:
<http://www.epa.gov/safewater/disinfection/index.html>

EPA Region 10: <http://yosemite.epa.gov/R10/WATER.NSF>
(click on the Drinking Water in the right column)

Contact the staff listed below:

Ethan Moseng (ODW), Surface Water Program Manager
ethan.moseng@doh.wa.gov or call (360) 236-3562

Sam Perry (ODW), Treatment Engineer
sam.perry@doh.wa.gov or call (253) 395-6755

Wendy Marshall (EPA), Regional Lead for Stage 2 D/DBP Rule
marshall.wendy@epa.gov or call (206) 553-1890

May 7-13

Drinking Water Week

The Office of Drinking Water (ODW) will recognize public water systems, a waterworks operator, and an advocate for drinking water issues during Drinking Water Week, May 7-13. These annual awards have become very important to the local communities receiving them, helping raise awareness of the importance of safe and reliable drinking water.

You too, can celebrate Drinking Water Week in your community. If you would like some ideas, a good place to visit is the American Water Works Association Web site at <http://www.awwa.org/advocacy/dww/>

Also be sure to visit the ODW Web site this summer to see this year's award winners at http://www.doh.wa.gov/ehp/dw/drinking_water_week_awards.htm



In This Issue

The following people contributed to the production of this issue of *the Water Tap*: John Aden, Peggy Barton, Denise A. Clifford, Thanh Dang, Chris Gagnon, Denise Lahmann, Jolyn Leslie, Donna Lynch, Ethan Moseng, Sam Perry, Deb Phillips, Paula Smith, Amy Swecker, Dean Thiem, Leslie Thorpe, Jimmy Weber, Mike Wilson, Linda Waring (Editor).

The Department of Health Office of Drinking Water publishes *Water Tap* quarterly to provide information to water system owners, water works operators and others interested in drinking water.

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